

EXHIBIT 4



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/565,573	09/23/2009	Yiming Ma	P3221US00	1715

11764	7590	08/09/2013
Ditthavong Mori & Steiner, P.C.		
44 Canal Center Plaza		
Suite 322		
Alexandria, VA 22314		

EXAMINER	
KARIKARI, KWASI	

ART UNIT	PAPER NUMBER
2641	

NOTIFICATION DATE	DELIVERY MODE
08/09/2013	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@dcpatent.com
 ipadmin@dcpatent.com
 Nokia.IPR@nokia.com

Office Action Summary	Application No. 12/565,573	Applicant(s) MA ET AL.	
	Examiner KWASI KARIKARI	Art Unit 2641	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 30 April 2013.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) 1-17 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.

6) ☐ Claim(s) ____ is/are allowed.

7) ☒ Claim(s) 1,2,9,12 and 13 is/are rejected.

8) ☒ Claim(s) 3-8,10,11 and 14-17 is/are objected to.

9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some * c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.

3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.

4) ☐ Other: ____.

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 04/30/2013 have been fully considered but they are not persuasive.

a. Regarding claim 1, (similarly, in claim 12), the Applicant argues and asserts that the combination of Gummadi and Smith fails to disclose the claimed limitation:

[“determining whether the mobile device is moving outside a specified area at a current time of the plurality of different times based on the signal data; if the mobile device is determined to be not moving outside the specified area, then causing at least in part an incrementing of a count for a stationary state associated with the set of one or more distinct signal sources at the current time.”]

The Examiner disagrees with Applicant's assertion.

Regarding an indication as to whether Gummadi teaches the claimed limitations of: “determining whether the mobile device is moving outside a specified area at a current time of the plurality of different times based on the signal data”, it is understood

Gummadi discusses “a subscriber station that includes a monitoring module that determines a mobility factor indicative of subscriber station motion, a timing module that generates a handoff indication based on the mobility factor when the subscriber station has been in a low mobility state for an extend period of time, a scanner that searches for a second service type and determines the availability of the second service type, and a message generator that requests a

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handoff to the second service type in response to the handoff indication" (see, [0023]).

Second, Gummadi discusses that the subscriber station/receiver 200 "determines the mobility factor based in part on the mobility metrics as well as a receiver state. The receiver determines its state based, in part, on the communication links to one or more base stations and information received over the one or more communication links (see, [0137]); and "... if the subscriber station hands off from the alternative service type back to the original service type and then remains in the original service type for a timer approximately equal to the low mobility threshold time, it may be advantageous to assume that the subscriber station is primarily stationary..." (see, [0244]).

Therefore, the above discussions, as least, show that Gummadi teaches the claimed limitation of: determining whether the mobile device is moving outside a specified area at a current time of the plurality of different times based on the signal data."

Regarding the claimed limitation of: "if the mobile device is determined to be not moving outside the specified area, then causing at least in part an incrementing of a count for a stationary state associated with the set of one or more distinct signal sources at the current time", Gummadi mentions that the invention includes "handing

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off communication in a wireless system by determining a first value of a mobility factor indicative of a relative motion of a subscriber station communicating with a base station using a first service type. The subscriber station determines an availability of an alternative service type **if the first value indicates that the subscriber station has been stationary for some period of time** (see, [0015]).

Gummadi als mentions that “a subscriber station that includes a monitoring module that determines a mobility factor indicative of subscriber station motion, a timing module that generates a handoff indication based on the mobility factor **when the subscriber station has been in a low mobility state for an extend period of time...**(see, [0023]; “a handoff state may last for **an extended period of time if the subscriber station remains in a region supported by the edge of the range of multiple base stations...** (see, [0138]); initialization of timer and transition to steady state at the end of time expiration, see [0183-85]); and “...if the subscriber station hands off from the alternative service type back to the original service type and then remains in the original service type for a timer approximately equal to the low mobility threshold time, it may be advantageous to assume that the subscriber station is primarily stationary...the value of the high mobility threshold

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time is dependent upon the amount of time that the subscriber station was serviced by the original service type, was in the high mobility state or both.” (see, [0244]).

Therefore, the above discussions, as least, show that Gummadi teaches the claimed limitation of: “if the mobile device is determined to be not moving outside the specified area, then causing at least in part an incrementing of a count for a stationary state associated with the set of one or more distinct signal sources at the current time.”

Based on the above response, the Examiner maintains that the combination of Gummadi and Smith teaches the above claimed limitations. Therefore, the Office Action is being made FINAL as shown below.

b. The rejection of all the dependent claims, by virtue of their dependency from the independent claims, is also being made Final.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point

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out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gummadi et. al., (U.S. 2008/0233945), (hereinafter, Gummadi) in view of Smith et al., (U.S 2003/0006911), (hereinafter, Smith).

Regarding claims 1 and 12, Gummadi discloses a method/apparatus comprising:

causing at least in part a receiving of signal data (**= known signals may be used to determined mobility metric, see [0115]**), that indicates a set of one or more distinct signal sources from which signals are received at a mobile device for each of a plurality of different times (**= base station can command a subscriber station to periodically transmit a known sequence in the sounding zone over an uplink...and the correlation of sounding sample from first and later frame are used to determine mobility of the subscriber station, see [0116]**);

determining whether the mobile device is moving outside a specified area (**= determining mobility factor includes when subscriber enters a network by moving from outside a coverage area, see [0170]**) at a current time of the plurality of different times based on the signal data (**= initialization timer for mobility metric can be set to a value that ensures updated metric to include initialization and expiration time and event, see [0179-81]**);

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if the mobile device is determined to be not moving outside the specified area, then causing at least in part an incrementing of a count for a stationary state associated with the set of one or more distinct signal sources at the current time (**= initialization of timer and transition to steady state at the end of time expiration, see [0183-85]**).

Gummadi explicitly fails to disclose the claimed limitations of: “causing at least in part initiation of delivery of a service to the mobile device based on the stationary state”.

However **Smith**, which is an analogous art, discloses a client handheld device that, in stationary state, communicates with an advertisement platform and the device is presented with coupon (see, [0136-37 and 0141-44]), which meets the claimed limitations.

Therefore, it would have been obvious at the time the invention was made for one of the ordinary skill in the art to have combined the teaching of Smith with Gummadi for the benefit of achieving a communication system that provides targeted advertisement based on client’s location thereby, enabling convenient proximity commerce in the communication system.

Regarding claims 2 and 13, as recited in claims 1 and 12, **Gummadi** further discloses the method/apparatus, wherein determining whether the mobile device is moving outside the specified area comprises determining whether a measure of similarity, between a first set of one or more distinct signal sources in a time window ending at the current time and a second set of one or more distinct signal sources in a time window

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ending at a time earlier than the current time, is below a movement threshold (**see, [0116]**).

Regarding claim 9, as recited in claim 1, **Gummadi** explicitly fails to disclose the method, wherein delivering the service to the mobile device based on the stationary state further comprises determining a type of service based on communications by the user during the stationary state.

However **Smith**, which is an analogous art, discloses the method, wherein delivering the service to the mobile device based on the stationary state further comprises determining a type of service based on communications by the user during the stationary state (**see, [0136-37 and 0141-44]**).

Therefore, it would have been obvious at the time the invention was made for one of the ordinary skill in the art to have combined the teaching of Smith with Gummadi for the benefit of achieving a communication system that provides targeted advertisement based on client's location thereby, enabling convenient proximity commerce in the communication system.

Allowable Subject Matter

4. Claims 3-8, 10, 11 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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CONCLUSION

Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-T (6:30am – 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904.


The fax phone number for the organization where this application or proceeding is assigned is **571-273-8566**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

<p>/Kwasi Karikari/ Primary Examiner: Art Unit 2641.</p>
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Search Notes 	Application/Control No. 12565573	Applicant(s)/Patent Under Reexamination MA ET AL.
	Examiner KWASI KARIKARI	Art Unit 2641

CPC- SEARCHED		
Symbol	Date	Examiner


CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
455	410,411,435.1	8/5/2013	K.K.

SEARCH NOTES		
Search Notes	Date	Examiner
Updated East search	8/5/2013	K.K.

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

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<i>Index of Claims</i> 	Application/Control No. 12565573	Applicant(s)/Patent Under Reexamination MA ET AL.
	Examiner KWASI KARIKARI	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
CLAIM		DATE							
Final	Original	09/19/2012	08/05/2013						
	1	÷	✓						
	2	÷	✓						
	3	÷	○						
	4	÷	○						
	5	÷	○						
	6	÷	○						
	7	÷	○						
	8	÷	○						
	9	÷	✓						
	10	÷	○						
	11	÷	○						
	12	÷	✓						
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	16	÷	○						
	17	÷	○						
	18	÷	-						
	19	÷	-						
	20	÷	-						